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PTO/SB/21 (04-04) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE lection of information unless it displays a valid OMB control number. Paperwork Reduction Act of 1995, no persons are required to respond to a Application Number 10/731,213 TRANSMITTAL Filing Date December 8, 2003 **FORM** First Named Inventor Brown et al. Art Unit Not Yet Known (to be used for all correspondence after initial filing) Examiner Name Not Yet Known Attorney Docket Number EPC-00008 Total Number of Pages in This Submission **ENCLOSURES** (Check all that apply) After Allowance communication Fee Transmittal Form Drawing(s) to Technology Center (TC) Appeal Communication to Board Licensing-related Papers of Appeals and Interferences Fee Attached Appeal Communication to TC Petition (Appeal Notice, Brief, Reply Brief) Amendment/Reply Petition to Convert to a Proprietary Information After Final Provisional Application Power of Attorney, Revocation Status Letter Change of Correspondence Address Affidavits/declaration(s) Other Enclosure(s) (please Terminal Disclaimer Identify below): Extension of Time Request Form PTO-1449 and 9 Request for Refund Express Abandonment Request references cited thereon CD, Number of CD(s) Information Disclosure Statement Remarks Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53 SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT Randolph J. Huis Reg. No. 34,626

CERTIFICATE OF TRANSMISSION/MAILING

2004

Volpe and Koenig, P.C

Individual name Signature Date

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Randolph J. Huis	
Signature	fall-	Date 5/12/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:

Brown et al.

Application No.: 10/731,213

Confirmation No.: Not Yet Known

Filed:

December 8, 2003

For: METHOD FOR FORMING MEMS GRID

ARRAY CONNECTOR

Group:

Not Yet Known

Examiner:

Not Yet Known

Our File: EPC-00008

Date:

May 12, 2004

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Further to Applicants' Duty of Disclosure pursuant to 37 C.F.R. §1.56, Applicants wish to bring to the Examiner's attention the material cited on the enclosed PTO-1449 form. Pursuant to Pre-Official Gazette Notice signed July 11, 2003 waiving the requirements under 37 C.F.R. § 1.98(a)(2)(i) for applications filed after June 30, 2003, copies of the cited U.S. documents have not been included. Copies of all other cited references are enclosed.

Only abstracts of Japanese publications 2000011443 and 2001203435 are provided.

Applicant: Brown et al. **Application No.:** 10/731,213

Some of these documents were cited in at least one of the Office Actions dated December 29, 2003, April 9, 2004 and April 12, 2004 that were issued in co-pending applications 10/460,496, 10/460,501 and 10/460,504, each filed on June 11, 2003.

To the best knowledge of the undersigned, this Information Disclosure Statement is being submitted prior to a first Office Action on the merits. Accordingly, no fee is required.

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the PTO-1449 form indicating his consideration of the cited materials.

Respectfully submitted,

Brown et al.

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RJH/DPD/lhc Enclosures

MEN	FORM PTO-1449			ATTY. DOCKET NO. SERIAL NO. EPC-00008 10/731,213					
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			APPLICANT Brown et al.						
	S1	FORMATION DISCLOSURE FATEMENT BY APPLICANT		FILING DATE GRO December 8, 2003 Not Yet					
	(Us	e several sheets if necessary)							
	.,		U.S. PATENT	DOCUMENTS	1				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS		DATE IF PRIATE	
	AA	3,634,807	01/1972	Grobe et al.	·				
	AB	4,998,885	03/1991	Brian S. Beaman					
	AC	5,152,695	10/1992	Grabbe , et al.					
	AD	5,199,879	04/1993	Kohn et al.					
	AE	5,228,861	07/1993	Dimitry G. Grabbe					
	AF	5,257,950	11/1993	Lenker et al.					
	AG	5,468,655	11/1995	Greer					
	AH	5,530,288	06/1996	David B. Stone					
	Al	5,532,612	07/1996	Liang					
	AJ	5,593,903	01/1997	Beckenbaugh et al.					
	AK	5,632,631	05/1997	Fjelstad et al.					
	AL	5,772,451	06/1998	Dozier et al.					
	AM	5,791,911	08/1998	Fasano et al.					
	AN	5,802,699	09/1998	Fjelstad et al.					
	AO	5,812,378	09/1998	Fjelstad et al.					
-		FC	REIGN PATE	ENT DOCUMENTS	<u> </u>			•	
	·						TRANS	SLATION	
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO	
	AP	EP 0692823 AI	01/1996	Europe			Х		
	AQ	JP2000011443	04/2000	Japan			Х		
		OTHER DOCUMENTS	(Including Au	ithor, Title, Date, Pertinent Pag	es, Etc.)				
	AR	U.S. F	Publication No	. 2002/0011859 Al; 01/31/02; S	mith et al.				
	AS			No. 2002/0058356 AI;05/16/0					
	AT			No. 2002/0079120 Al;06/27/02;Eskildsen et al.				<u></u>	
	AU U.S. Publication No. 2002/0129894 Al;09/19/02;Liu et al.								

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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE			ATTY. DOCKET NO. SERIAL NO. EPC-00008 10/731,213					
	PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)			APPLICANT Brown et al.				
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	(00		LIS PATENT	DOCUMENTS	<u>. </u>	· <u> </u>		
EXAMINER						Ī		DATE IF
INITIAL	AV	DOCUMENT NUMBER 5,842,273	12/1998	NAME Schar	CLASS	SUBCLASS	APPRO	PRIATE
<u> </u>			01/1999	Rutledge et al.				
<u> </u>	AW	5,860,585						
	AC	5,896,038	04/1999	Budnaitis et al.	<u> </u>			
	AY	5,934,914	08/1999	Fjelstad et al.				
	AZ	5,967,797	10/1999	Maldonado		:		
	ВА	6,019,611	02/2000	McHugh et al.				
	BB	6,032,356	03/2000	Eldridge et al.				
	BC	6,063,640	05/2000	Mizukoshi et al.				
	BD	6,133,534	10/2000	Fukutomi et al.			_	
	BE	6,156,484	12/2000	Bassous et al.				
	BF	6,184,699	02/2001	Smith et al.				
	BG	6,196,852	03/2001	Neumann , et al.				
	BH	6,200,143	03/2001	Haba et al.				
	ВІ	6,204,065	03/2001	Toshimasa Ochiai				
	BJ	6,205,660	03/2001	Fjelstad et al.				
		FC	REIGN PATE	ENT DOCUMENTS	-			
							TRANS	SLATION
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
	BK	JP2001203435	07/2001	Japan				
	BL	9602068	01/1996	WO				
		OTHER DOCUMENTS	(Including Au	thor, Title, Date, Pertinent Pag	es, Etc.)			
	BM U.S. Publication No. 2002/0133941 Al;09/26/02;Akram et al.							
	BN			No. 2002/0146919 AI;10/10/02				
	BO U.S. Publication No. 2002/0179331 A1;12/05/02;Brodsky et al.							
	BP U.S. Publication No. 2003/0089936 Al;05/15/03;McCormack et al.							

EXAMINER	DATE CONSIDERED

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO. EPC-00008 SERIAL NO. 10/731,213 APPLICANT Brown et al.					
<u></u>	(Us	e several sheets if necessary)				<u>.</u>		
			U.S. PATENT	DOCUMENTS				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS		DATE IF
	BQ	6,208,157	03/2001	Akram et al.		1		
	BR	6,224,392	05/2001	Fasano et al.	†			
	BS	6,250,933	06/2001	Khoury et al.				
	BT	6,264,477	07/2001	Smith et al.				
	BU	6,293,808	09/2001	Toshimasa Ochiai				
	BV	6,298,552	10/2001	Yu-Sung Li				
	BW	6,335,210	01/2002	Farooq et al.				
	ВХ	6,336,269	01/2002	Eldridge et al.				
	BY	6,337,575	01/2002	Akram				
	BZ	6,373,267	04/2002	Hiroi				
	CA	6,374,487	04/2002	Haba et al.				
	СВ	6,392,524	05/2002	Biegelsen et al.				
	CC	6,420,661	07/2002	Di Stefano et al.				
	CD	6,420,789	07/2002	Tay et al.				
	CE	6,420,884	07/2002	Khoury et al.				
		FC	REIGN PATE	ENT DOCUMENTS				
							TRANS	SLATION
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO
	CF	9744859	11/1997	WO			:	
	CG	0213253	02/2002	WO				
		OTHER DOCUMENTS	(Including Au	uthor, Title, Date, Pertinent Pag	es, Etc.)		l	
	СН	U.S	6. Publication	No. 2003/0096512 Al;05/22/03;	Cornell			
	CI			o. 2003/0099097 A1;05/29/03;N				
	CJ	<u> </u>		o. 2003/0147197 A1;08/07/03;U				
	CK	U.S. P	ublication No.	2003/0194832 A1;10/16/03;Lc	pata et al.			

EXAMINER	DATE CONSIDERED		

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO. SERIAL NO. 10/731,213					
			APPLICANT Brown et al.					
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			U.S. PATENT	DOCUMENTS				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS		DATE IF
	CL	6,428,328	08/2002	Haba et al.				
	СМ	6,437,591	08/20/02	Farnworth et al.				
	CN	6,442,039	08/2002	Schreiber				
	СО	6,461,892	08/2002	Masud Beroz				
	СР	6,474,997	11/2002	Toshimasa Ochiai				
	CQ	6,492,251	12/2002	Haba et al.				
	CR	6,520,778	02/2003	Eldridge et al.				
	CS	6,551,112	04/2003	Li et al.				
	СТ	6,616,966	09/2003	Mathieu et al.				
	CU	6,627,092	09/2003	Clements, et al.				
	CV	6,640,432	11/2003	Mathieu, et al				
	CW	6,671,947	01/2004	Mart T. Bohr				
		FC	OREIGN PATE	ENT DOCUMENTS				
							TRAN	SLATION
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	YES	NO

			<u></u>					
	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	СХ	An article entitled "Patented Socketing System for the BGA/CSP Technology" by E-tec Interconnect Ltd., pages 1-4						
	CY	Gary B. Kromann et al., "Motorola's PowerPC 603 and PowerPC 604 RISC Microprocessor: the C4/Ceramic-ball-grid Array Interconnect Technology", Motorola Advanced Packaging Technology, Motorola, Inc., 1996, pages 1-10						
	CZ	Ravi Mahajan et al., "Emerging Directions for Packaging Technologies", Intel Technology Journal, V. 6, Issue 02, 16 May 2002, pages 62-75						

EXAMINER	DATE CONSIDERED